

Phenomena of Jupiter's Satellites.

Day of Obs.	Satellite.	Phenomenon.	Telescope.	Power.	Mean Solar Time of Observation.		Observer.
					h m s	N.A.	
1887. April	3	Ecl. D.	E. Eq.	210	10 51 13	10 54 12	A. D.
	3	Last seen	"	"	10 53 48		"
	8 (a)	Bisection	"	"	11 37 30	11 41	H. T.
	8	Last contact	"	"	11 40 30		"
	14	Occ. R.	"	"	10 9 58	10 15	F.
	14	First seen	"	"	10 13 13		"
	14	Bisection	"	"	10 16 45		"
	19	Last contact	"	"	11 2 46	11 6	L.
	19	First contact	"	"	11 8 30		"
	20 (b)	Last contact	"	140	12 27 53	12 30	T.
May	5 (c)	First contact	"	"	12 30 22		"
	20	Bisection	"	"	12 33 52		"
	20	Last contact	"	"	9 47 42	9 55	A. D.
	5	First contact	"	"	9 50 21		"
	5	Bisection	"	"	9 54 6		"
	5	Last contact	"	"			"

Day of Obs.	Satellite.	Phenomenon.	Telescope.	Power.	Mean Solar Time of Observation. h m s	Mean Solar Time of N.A. h m s	Observer.
1887, May 10 (<i>d</i>)	III.	Tr. Ing. First contact	E. Eq.	210	12 44 9	12 47	I.
	III.	Last contact	"	"	12 49 48		"
	I.	Occ. D. Bisection	"	"	9 25 32	9 25	A. P.
	I.	Last contact	"	"	9 28 2		"
	I.	Ecl. R. First seen	"	"	12 7 19	12 7 16	"
	II.	Tr. Ing. First contact	"	"	9 6 29		A. D.
	II.	Bisection	"	"	9 9 13	9 9	"
	II.	Last contact	"	"	9 11 58		"
	III.	Ecl. R. First seen	"	"	10 26 48		"
	III.	Full brightness	"	"	10 32 30	10 28 55	"
	III.	First seen	Altaz.	100	10 29 19		T.
	I.	Occ. D. First contact	E. Eq.	210	11 5 10		A. D.
	I.	Bisection	"	"	11 7 54	11 10	"
	I.	Last seen	"	"	11 11 35		"
	II.	Tr. Egr. First contact	"	"	11 38 19	11 42	"
	II.	Last contact	"	"	11 45 3		"
	II.	Occ. D. Bisection	"	"	10 48 58		R. W.
	II.	Last seen	"	"	10 50 49	10 49	"

Day of Obs.	Satellite.	Phenomenon.	Telescope.	Power.	Mean Solar Time of Observation.		Mean Solar Time of N.A.		Observer.
					h	m	s	h	
1887. June	I.	First contact	E. Eq.	210	10	57	41	11	R. W.
	I.	Bisection	"	"	11	0	7		"
	I.	Last seen	"	"	11	1	26		"
	III.	Tr. Ing. First contact	"	140	9	29	9	9	A. D.
	III.	Last contact	"	"	9	41	46		"
	II.	Tr. Egr. First contact	"	"	10	20	1		"
	II.	Bisection	"	"	10	24	2	10	"
	II.	Last contact	"	"	10	28	31		"
	I.	Ecl. R. First seen	"	"	10	36	29		"
	I.	First seen	Altaz.	100	10	39	39	10 36 7	H.
July	III.	Ecl. R. First seen	"	"	10	17	4	10 18 54	T.
	I.	Tr. Egr. First contact	"	"	10	44	31	10 31	,

Notes.

- (a) Sky cloudy at time of first contact; last contact observed through passing clouds.
- (b) Sky hazy.
- (c) *Jupiter* very ill-defined. The observations of first contact and bisection considered unsatisfactory.
- (d) Sky hazy. Limb of *Jupiter* ill-defined.
- (e) Satellite very faint; sky thick.
- (f) Satellite very faint.
- (g) *Jupiter's* limb badly defined.
- (h) Time of full brightness could not be estimated on account of clouds; the time when first seen is considered accurate.
- (i) Cloudy.
- (k) Satellite hardly visible; planet very low.

Observations of Phenomena of Jupiter's Satellites, at Windsor, New South Wales, in the year 1887. By J. Tebbutt.

Day of Observation.	Satellite.	Phenomena.	Phase.	Aperture of Telescope.	Mag. Power.	Windsor Mean Time of Phase.			Correction to Nautical Almanac. m s
						h	m	s	
1887, Mar. 17	I.	Ecl. D.	Last seen	8-inch	170	10	25	59.4	+ 0 56.6
	I.	Tr. Ingr.	Ext. contact	"	"	9	59	23.0	
	I.	"	Int. contact	"	"	10	3	52.3	
	III.	Ecl. D.	Began to fade	"	"	10	59	57.9	
	III.	"	Last seen	"	"	11	8	28.5	+ 6 14.7
	III.	Ecl. R.	First seen	"	"	12	50	58.9	- 1 24.9
	III.	"	Full brightness	"	"	12	59	53.0	
	I.	Ecl. D.	Began to fade	4½-inch	130	8	38	53.9	
April	I.	"	Last seen	"	"	8	40	53.1	+ 0 36.3
	II.	"	Began to fade	8-inch	170	10	13	39.5	
	II.	"	Last seen	"	"	10	16	21.0	+ 0 28.2
	I.	"	Began to fade	"	"	10	32	51.8	
	I.	"	Last seen	"	"	10	34	47.0	+ 0 56.2
	I.	Tr. Ingr.	Ext. contact	4½-inch	130	7	56	16.5	
	I.	"	Int. contact	"	"	8	0	30.8	
	I.	Tr. Egr.	Int. contact	8-inch	170	10	3	30.2	
	I.	"	Ext. contact	"	"	10	7	24.6	
	II.	Tr. Ingr.	Ext. contact	"	"	10	13	4.2	